
HOUSE RESOLUTION

CONGRATULATING THE IOLANI SCHOOL AND KEALAKEHE HIGH SCHOOL
ROBOTICS TEAMS, KNOWN AS THE MOON RIDERS, FOR THEIR WORK ON
THE ELECTRODYNAMIC DUST SHIELD LUNAR PROJECT AND THEIR
PARTNERSHIPS WITH PISCES, NASA, AND GOOGLE LUNAR XPRIZE.

1 WHEREAS, the House of Representatives takes great pride in
2 recognizing the achievements of those conscientious, talented,
3 and energetic individuals who epitomize the best and brightest
4 of Hawaii's young scholars; and
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6 WHEREAS, Moon RIDERS: Research Investigating Dust Expulsion
7 Removal Systems, is a one-of-a-kind partnership between the
8 National Aeronautics and Space Administration (NASA), the
9 Pacific International Space Center for Exploration Systems
10 (PISCES), Google Lunar XPrize, the Department of Education,
11 'IOLANI SCHOOL, and KEALAKEHE HIGH SCHOOL; and
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13 WHEREAS, the goal of the Moon RIDERS is to make history as
14 the very first high school students to successfully develop,
15 build, and fly a NASA experiment to the surface of the moon; and
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17 WHEREAS, a major hurdle that all extraterrestrial landings
18 have faced since the first lunar landing is dust; endless layers
19 of dust that are as fine as flour, yet as rough as sandpaper
20 particles, are kicked up during landings and can wreak havoc on
21 delicate space equipment and fly suits; and
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23 WHEREAS, for many years, NASA researchers have striven to
24 refine a method called the electrodynamic dust shield (EDS) to
25 remove surface dust; and
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27 WHEREAS, the EDS is one aspect of the lunar mission that
28 the robotics teams from 'IOLANI SCHOOL and KEALAKEHE HIGH SCHOOL
29 will test; and
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1 WHEREAS, the EDS unit needs to be mounted to the base of a
2 lunar lander, but before an assessment of its relative position
3 can be made, an entire mockup of the lunar lander must be
4 constructed; and

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6 WHEREAS, the robotics team from 'IOLANI SCHOOL has served as
7 a hub for science, technology, engineering, and math education
8 in Honolulu for the last nine years; and

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10 WHEREAS, the 'IOLANI SCHOOL robotics team has won numerous
11 competitions across different platforms and qualified for the
12 Vex Robotics Design System World Competition in 2010, and also
13 participates in For Inspiration and Recognition of Science and
14 Technology, Botball, Vex Robotics Design System, and For
15 Inspiration and Recognition of Science and Technology Lego
16 League; and

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18 WHEREAS, the KEALAKEHE HIGH SCHOOL robotics team has served
19 as a hub for science, technology, engineering, and math
20 education in West Hawaii for the last six years; and

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22 WHEREAS, the KEALAKEHE HIGH SCHOOL robotics team has won
23 over 50 awards and competitions across 26 different platforms,
24 including For Inspiration and Recognition of Science and
25 Technology (FIRST), Botball, Vex Robotics Design System, and
26 Remotely Operated Underwater Vehicle; and

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28 WHEREAS, this year the KEALAKEHE HIGH SCHOOL robotics team
29 will travel to 40 competitions across Hawaii, the mainland,
30 Asia, and Australia; and

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32 WHEREAS, the 'IOLANI SCHOOL robotics team fabricated a
33 quarter size mockup of the Astrobotic Lunar Rover called the
34 Griffin; and the KEALAKEHE HIGH SCHOOL robotics team is working
35 on an alternative rover designed by the EarthRise Space
36 Foundation; and

37
38 WHEREAS, both teams started building their rovers in
39 September 2014 and will conduct their engineering field tests in
40 March 2015 at a PISCES test site on Mauna Kea; and



H.R. NO. 166

1 WHEREAS, during the March 2015 field tests, the mockups
2 will endure a series of tests to simulate a lunar landing, and
3 both teams will have an opportunity to test the EDS and make
4 recommendations on how to measure its performance; and
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6 WHEREAS, the 'IOLANI SCHOOL and KEALAKEHE HIGH SCHOOL
7 robotics teams will also take part in outreach as science,
8 technology, engineering, and math education ambassadors and
9 introduce the project to younger students to generate interest
10 and increase participation in the science, technology,
11 engineering, and math education pipeline, share their
12 groundbreaking experience with others, and create high value 21st
13 century skills; now, therefore,
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15 BE IT RESOLVED by the House of Representatives of the
16 Twenty-eighth Legislature of the State of Hawaii, Regular
17 Session of 2015, that this body hereby congratulates the Moon
18 RIDERS, the 'IOLANI SCHOOL and KEALAKEHE HIGH SCHOOL robotics
19 teams, for their outstanding work on the electrodynamic dust
20 shield project and their partnerships with PISCES, NASA, and
21 Google Lunar XPrize; and
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23 BE IT FURTHER RESOLVED that certified copies of this
24 Resolution be transmitted to the Head of School of 'IOLANI SCHOOL
25 and Principal of KEALAKEHE HIGH SCHOOL.
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OFFERED BY:

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Hakoshima

MAR 23 2015

